

**Delta Operations for Salmonids and Sturgeon (DOSS) Group**  
**Conference call: 04/19/11 at 9:00 a.m.**

**Objective:** Provide advice to the Water Operations Management Team (WOMT) and National Marine Fisheries Service (NMFS) on measures to reduce adverse effects from Delta operations of the Central Valley Project and the State Water Project on salmonids and green sturgeon. DOSS will coordinate the work of other technical teams. DOSS notes and advice can be found at: <http://swr.nmfs.noaa.gov/ocap/htm>

**DWR:** Andy Chu, Mike Ford, Angela Llaban, Cynthia LeDoux-Bloom, Tracy Pettit

**FWS:** Nick Hindman, Roger Guinee

**NMFS:** Barbara Rocco, Barb Byrne, Bruce Oppenheim

**DFG:** Dan Kratville, Robert Vincik, Joe Johnson

**Reclamation:** Thuy Washburn, John Hannon, Josh Israel

**SWRCB, EPA:** not present

**Action Items:**

- 1) **DOSS** will verify the calculations for steelhead loss and seek agreement on the loss density equation for steelhead. **Because this item is ongoing, DOSS decided to delete it from the action item list but continue to discuss.**
- 2) **Oppenheim:** will check when the Sacramento River Temperature Task Group meets. **Reported that he left messages with the group but has not received a response.**
- 3) **Byrne:** will draft spreadsheet idea on 4:1 Vernalis: Export ratio and propose forming a subgroup for implementing. **Item is carried forward to next meeting.**
- 4) **NMFS RPA adjustments:** Please take a week to look at the changes made this year. **Item is carried forward to next meeting.**

**Upcoming DOSS schedule:** The first week in May, NOAA will be at a conference in Santa Cruz for the week. DOSS should decide whether to hold the regular weekly meeting scheduled for May 3 without a representative from NOAA in attendance. The options are to either skip that week's meeting or have someone else lead the DOSS team. It was suggested that the meeting be held, particularly because of the Vernalis flow issues and decisions. No decision was made but DOSS will discuss it again at the next conference call on 4/26/11.

**Agenda**

- 1) Fish monitoring data
- 2) Current operations
- 3) Weather forecast
- 4) Update on VAMP

**Fish Monitoring:** The following table presents the fish monitoring data from 4/11–4/18/11.

| Location             | Chippis Is. Midwater Trawl | Sacramento Kodiak Trawl | Mossdale Kodiak Trawl | Beach Seines | Knights Landing RST | Tisdale Weir RST | Moulton Weir RST | Deer/Mill Creeks RST |
|----------------------|----------------------------|-------------------------|-----------------------|--------------|---------------------|------------------|------------------|----------------------|
| Sample Date          | 4/11, 15, 18               | 4/11/, 13, 15           | 4/11–4/12             | 4/12, 13, 15 | 4/12–4/18           | 4/14, 16, 17, 18 | No data          | No data              |
| Total Catch          | 54                         | 26                      | 1                     | 53           | 39                  | 9                |                  |                      |
| FR                   | 0                          | 3                       | 0                     | 44           | 20                  | 7                |                  |                      |
| LFR                  | 0                          | 0                       | 0                     | 7            | 0                   | 1                |                  |                      |
| WR                   | 16                         | 4                       | 0                     | 0            | 0                   | 0                |                  |                      |
| SR                   | 34                         | 19                      | 1                     | 2            | 19                  | 1                |                  |                      |
| (Ad-clips)           | 1                          | 0                       | 0                     | 0            | 0                   | 0                |                  |                      |
| DS                   | 3                          | 0                       | 0                     | 0            | 0                   | 0                |                  |                      |
| LFS                  | 0                          | 0                       | 0                     | 0            | 0                   | 0                |                  |                      |
| SPTL                 | 0                          | 0                       | 0                     | 0            | 0                   | 0                |                  |                      |
| SH(ad-clip)          | 0                          | 0                       | 0                     | 0            | 0                   | 0                |                  |                      |
| SH(wild)             | 0                          | 0                       | 0                     | 0            | 0                   | 0                |                  |                      |
| W. Temp. (avg. °F)   | 58.1                       | 54.5                    | 57.5                  | 56.2         | 57.8                | 54.4             |                  |                      |
| Flows ( cfs)         |                            |                         |                       |              | 18,824              | 15,100           |                  |                      |
| Turbidity (avg. NTU) |                            |                         |                       |              | 26.2                | 19.7             |                  |                      |
| FR/SR Avg.CPUE       |                            |                         |                       |              | 2.7                 | 0.95             |                  |                      |
| WR/LFR Avg. CPUE     |                            |                         |                       |              | 0                   | 0.12             |                  |                      |

Key: FR = Fall run; LFR = Late-fall run; SR = Spring run; WR = Winter run; SH = Steelhead; DS = Delta smelt; LFS = Longfin smelt; SPTL = Splittail; CPUE = average catch per unit of effort for the week

Tisdale: Total catch upriver has gone down. There was 1 late- fall-run Chinook caught yesterday. Flows there are decreasing as well. No winter run or unclipped steelhead or Chinook were caught. Trapping at Tisdale is done year round.

Beach Seines: Data was received after the conference call.

Knights Landing: No winter run were caught. There were some Chinook in the spring-run size caught. Flows are dropping. Monitoring will continue through the end of June.

Freemont Weir: Efforts to rescue sturgeon and other species were discussed as the flows on the Sacramento receded. This was the first time any green sturgeon have been rescued from the weir. There were 27 adult green sturgeon removed, acoustically tagged, and returned to the river. These fish headed upstream in April; but were scattered throughout the Yolo Bypass when it flooded. In addition to the weir stranding sturgeon there's a problem getting them out of other areas; DFG is trying to come up with methods by which to get them out of the ponds within the bypass. The ponds are about 23 ft deep and full of snags. Several suggestions were made including e-shocking, gill nets, and crowders. Getting them safely back to the river is another issue. DFG, NMFS, and UCD managed to save all the sturgeon in the weir apron. However,

there are other ponds where sturgeon are stranded; one with a white sturgeon nearly 6 ft long. Agency directors are going to discuss continuing rescue efforts tomorrow. Sturgeon might stay in those ponds year round because they don't drain. In addition, salmon, steelhead, and striped bass were also rescued. At the Tisdale Weir there were 53 adult salmon (presumably spring-run but some could have been winter-run based on run timing) and a few juveniles; Fremont Weir has an ineffective ladder so salmon may have been able to pass over the weir. There are still large numbers of juvenile salmon spread out along the bypass that could be stranded. DOSS discussed the need for updating the rescue policy. NMFS, FWS, and DFG will come up with a plan jointly.

**Fish salvage & loss data (4/11-4/17):** There was one shutdown at the CVP fish facility on 4/14 for facility maintenance. For additional info:  
<http://www.water.ca.gov/swp/operationscontrol/calfed/calfedmonitoring.cfm>

#### Chinook salmon loss

|               | CVP | SWP   |
|---------------|-----|-------|
| Winter-run    | 4   | 0     |
| Spring-run    | 100 | 1,154 |
| Fall-run      | 0   | 8     |
| Late fall-run | 0   | 0     |

CVP: There were no fall or late-fall run salvaged; 124 spring run were salvaged for a loss of 100. There was 1 winter-run salvaged for a loss of 4 on 4/13.

SWP: There were 8 fall run lost on 4/14; no late-fall run were lost. There were 223 spring-run sized Chinook salvaged for loss of 1,154; no winter run were salvaged.

Cumulative YTD totals: Since October 1<sup>st</sup> : 4,360 winter- run juveniles have been lost.

**Non-clipped steelhead salvage:** CVP: 4 salvaged, SWP: 20 salvaged

Cumulative YTD totals: Since October 1<sup>st</sup> ; 380 steelhead salvaged; there were no longfin or delta smelt; no white sturgeon; no green sturgeon; the YTD for green sturgeon is 2 at SWP.

#### SWP & CVP OLDER JUVENILE\* CHINOOK LOSS & LOSS DENSITY 04/11/2011 through 04/17/2011

| Date      | OLDER JUVENILE LOSS**<br>(# fish) |      |          | Combined Older Juvenile Loss Density<br>(fish/TAF) |
|-----------|-----------------------------------|------|----------|----------------------------------------------------|
|           | SWP                               | CVP  | Combined |                                                    |
| 4/11/2011 | 0.00                              | 0.00 | 0.00     | 0.00                                               |
| 4/12/2011 | 0.00                              | 0.00 | 0.00     | 0.00                                               |
| 4/13/2011 | 0.00                              | 3.52 | 3.52     | 0.28                                               |
| 4/14/2011 | 0.00                              | 0.00 | 0.00     | 0.00                                               |
| 4/15/2011 | 0.00                              | 0.00 | 0.00     | 0.00                                               |

|           |      |      |      |      |
|-----------|------|------|------|------|
| 4/16/2011 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4/17/2011 | 0.00 | 0.00 | 0.00 | 0.00 |

DWR-DES 4/18/2011

Preliminary, subject to revision

\*Older juveniles defined as all Chinook > min. winter run length (Delta Model)

\*\*Loss data obtained from DFG, Stockton

One winter run was salvaged at CVP on 4/13 for a combined loss density of 0.28.

**Steelhead: 4/11-4/18:** For the preliminary loss data, DWR is using the Chinook loss equation: Non-clipped steelhead loss as of 4/17 was 1.43. There were less than three steelhead salvaged in the past week.

**Coded wire tags:** Two tags were picked up from the state facility; they appeared to be late-fall run from the Coleman Hatchery releases; this still leaves 15 unread tags. 15 tagged fish are now “missing” and no one knows where they are. DWR (Llaban) will check again at the end of the week. There were 14 salvaged at the state facility; 1 from the federal facility between 3/1 and 3/15. Most are within the winter-run size range. There was 1 late-fall run from December that has not yet been confirmed.

There were no tagged salmon taken last week, which is good and means that they are going out to the ocean. There are a number of Chinook going out at Chipps Island: a small peak of older juveniles observed leaving. These are likely winter run leaving the Delta and we’re seeing the last of them at Chipps Island.

We had hoped that the missing tags would fill in the missing information on the winter-run Chinook hatchery release on 2/3/11. There is still no information and none are showing up at the pumps, which is very unusual. They should have shown up in March. Reading the tags is a volunteer effort by FWS; there is no requirement to do this but we’d like to track down the missing tags.

ColemanNFH: 5.4 million fall-run were released last Thursday (4/14). The next release is delayed, most likely because the fish are not yet large enough; Coleman will hit their quota of 12 million this year. The numbers in the releases are not equal.

**Smelt working group (SWG) update:** The Smelt Working Group notes are posted on the FWS website at: <http://www.fws.gov/sfbaydelta/ocap/>. There was a meeting on Monday (4/18). No recommendations were made. No larval fish were caught at the salvage facilities.

#### Operations (4/12/11)

| SWP                   |        | CVP                  |                |
|-----------------------|--------|----------------------|----------------|
| Flows/Exports (cfs)   |        |                      |                |
| Clifton Court Forebay | 3,500  | Jones Pumping Plant  | 2,800          |
| Outflow               |        | American- Nimbus     | 9,000          |
| Total Delta Inflow    | 72,051 | Sacramento-Keswick   | 6,000          |
|                       |        | Stanislaus - Goodwin | 2,500 tomorrow |
| Feather - Oroville    | 6,000  | Merced               |                |

|                                |            |           |                  |
|--------------------------------|------------|-----------|------------------|
| Sacramento River at Freeport   | 40,386     | Mokelumne |                  |
| San Joaquin at Vernalis        | 26,633     | Tuolumne  |                  |
| OMR (daily)                    | +6,331     |           |                  |
| OMR 5 day                      | +8,306     |           |                  |
| OMR 14 day                     | +8,767     |           |                  |
| <b>Reservoir Storage (TAF)</b> |            |           |                  |
| San Luis                       | 1,066      | San Luis  | 966              |
| Folsom                         | 694        | Shasta    | 3,987            |
| Oroville                       | 3,095      |           |                  |
| <b>Delta Operations</b>        |            |           |                  |
| DCC gates                      | closed     | X2 (km)   | 56               |
| Outflow Index (cfs)            | 63,800 cfs | E/I       | 6% (14-day avg.) |
| Water Temperature (°F)         | 60.3       |           |                  |

**Federal:** Keswick release: 6,000 cfs; will stay at that level for the time being.

**State:** Oroville into Feather R: 6,000 cfs; increasing due to runoff from this past storm and the storm coming tomorrow. It might go up to 8,000 cfs depending on inflow.

San Joaquin R: Showing some decline in yesterday's forecast. DWR has not yet seen today's forecast. Flows should be down to about 24–25,000 cfs within the next 5 days. One of the reservoirs is scaling back.

**Weather forecast:** The last storm was slightly warmer than those in March. A storm is coming tomorrow; it might be slightly colder and there will not be as much runoff. Looking at from 7 to 10 days out, we might receive only a few tenths of an inch but not much. There was a runoff of ~18,000 cfs into Oroville this past weekend but this is not yet the peak yet for this year.

San Luis R: Still full on both sides

Vernalis (Mike Archer projections): The forecast for early May is that flows will dip below 19,000 cfs. DWR will coordinate with upstream reservoir operators. The projections show a drop between 4/30 and 5/1 of nearly 3–4,000 cfs. At the end of April, it is predicted to be close to 22,000 cfs and then go down suddenly to 19,290 cfs. If we believe those numbers, daily flows will be below 21,750 beginning 5/1.

The snowmelt in May could change that projection depending on how hot it gets. The reservoirs upstream have been releasing water to make room for the spring runoff, so that they can capture it. They did make some room in April. Merced R. is going to 5,000 cfs releases by the end of April and down to 3,500 cfs in May; the Tuolumne R. will go to 8,000 cfs from 5,000 in May. Stanislaus R is close to 2–3,000 cfs range in May. Other reservoirs are monitored every Thursday; DWR is talking with the flood center to monitor Vernalis. They don't project out more than 1–2 weeks but rely on more real-time operations.

DOSS subgroup: DWR had a chance to discuss the implementing process and will bring a proposal back to Byrne before presenting it to the entire DOSS group. Byrne will email DWR (Chu), DFG (Kratville), and FWS (Hindman) and possibly Reclamation (Barnett-Johnson).

Israel: Someone from the acoustic tag study (Reclamation) should also sit in. The subgroup proposed to meet on Thursday (4/21).

**DOSS advice to WOMT and NMFS:** Based on the data on Chinook salvage and losses no triggers have been met, DOSS advises that Old and Middle R flows continue to be maintained at the default of no more negative than -5,000 cfs per the NMFS RPA 4.2.3. There was no DOSS advice on VAMP.

**VAMP and non-physical barrier at Head of Old River:** FWS (Guinee): Discussed some of the VAMP experiment goals from Pat Brandes for this spring and will bring the different scenarios to the WOMT meeting this afternoon. FWS wanted to try to reach an agreement on the VAMP export targets today with John Leahigh, DWR; if not they will probably elevate the decision to the directors this week. There is a VAMP meeting of hydrologists and biologists on 4/21 that may provide some additional information.

**Next Meeting:** Conference call, 4/26/11, 9:00 a.m.